REMARKS

Applicants appreciate the Examiner's attention to the above referenced application. Applicants also appreciate the Examiner's time in an interview conducted on October 21, 2008 with Applicants' attorney, D'Ann Naylor Rifai. The rejections of independent claims 1 and 11 were discussed, along with the Fenger reference and the EFI specification. While no agreement was reached regarding allowability of the claims, the amendments submitted herein are consistent with the discussion of possible claim amendments. Applicants also respectfully refer the Examiner to section 2.1.1 of the EFI specification, further described on page 10 of the argument below, for further support for Applicants' arguments for allowability of the claims.

Applicants note the Examiner's statement on page 2 of the June 26, 2008 Office Action that a copy of the International Application has not yet been received. Applicants have provided a copy of the International Application for the Examiner's convenience, along with a copy of the Notice of Acceptance of Application from the U.S. Patent Office indicating that the International Application was received in the U.S. Patent Office on January 27, 2006. Applicants respectfully request that the Examiner contact the undersigned attorney if additional information is needed.

Claims 1-21 were rejected. Claims 1-21 are now pending, of which claims 1, 11, 13, 16, and 18 are independent. Claims 1, 11, 13, 16, 18 and 19 have been amended.

35 USC § 101 Rejection of the Claims

Claims 16-21 were rejected under 35 USC § 101 because the claimed invention was indicated to be directed to a non statutory subject matter. Claims 16 and 18 have been amended to claim a machine-accessible storage medium, and are now believed to be in condition for allowance.

35 USC §103 Rejection of the Claims

Claims 1-10 and 13-15 were rejected under 35 USC § 103(a) as being unpatentable over applicant's admission of prior art (AAPA) in view of Fenger (US Patent No. 5,701,476). Applicants respectfully submit that the cited references have been misinterpreted, and respectfully request reconsideration in light of the following arguments and amendments.

The Office Action states on page 3 that it would have been obvious to one of ordinary skill in the art to combine the teachings of AAPA with Fenger by modifying Fenger to conform to the EFI and PE/COFF specifications. The Office Action states on page 3 that the rationale for combining Fenger with AAPA is that "both AAPA and Fenger are directed towards firmware/drivers for computer systems." Applicants have searched the Fenger specification and find no references to firmware, and furthermore assert that Fenger is directed toward the operation of device drivers under the control of the operating system. In contrast, platform firmware runtime drivers such as those in Applicants' claimed invention are not under the control of the operating system and are instead controlled by the platform firmware.

As stated in Applicants' specification on page 1, the EFI specification provides a model for an interface between platform firmware and higher-level software such as operating systems. Those interfaces may be used, for example, for providing runtime services by the firmware to the operating system. As stated in Applicants' specification on page 3, to provide EFI runtime services for the OS, runtime drivers are required to reside in a special memory range referred to as the EFI runtime memory. The OS preserves the EFI runtime memory for the exclusive use of the platform firmware runtime drivers. Claims 1, 13, and 19 have been amended to clarify that the runtime memory is used exclusively by platform firmware. Platform firmware runtime drivers are loaded by the firmware and are not under control of the OS.

According to section 2.1.1 of the version 1.10 EFI specification, "an EFI image is loaded into memory through the LoadImage() Boot Service [Applicants note: provided by the platform firmware]. This service loads an image with a PE32+ format into memory. ***This PE32+ loader is required to load all the sections of the PE32+ image into memory*** (emphasis added)." This excerpt of the EFI specification indicates that the platform firmware does not allow partial loads of sections of PE32+ images into memory. ***Thus the EFI specification teaches away from the loading of sections of a platform firmware runtime driver into runtime memory.***

The drivers of Fenger are loaded by the operating system and not by platform firmware. The operating system functions in the context of operations allowed by the underlying hardware and firmware platform into which the operating system is loaded. Thus, even if the drivers of Fenger were to be used in an EFI-compliant platform, the combination would not provide the

benefits of Applicants' claimed invention that allows "omitting at least part of the discardable section when loading the PE image into the runtime memory."

The Office Action further states on page 3 that "the EFI specification and the PE/COFF format are industry standards for platform firmware and executable files that run under Microsoft Windows. Since Fenger's invention is implemented in a computer system that operates under a Microsoft Windows operating system, it would have been obvious to one of ordinary skill in the art to update Fenger's invention to operate according to the current industry standards." This statement is based upon a misunderstanding of the environment in which the EFI specification is applicable and the context of the Fenger drivers. As argued above, platform firmware runtime drivers such as those in Applicants' claimed invention are not under the control of the operating system and are controlled by the platform firmware.

Applicants have shown that independent claims 1 and 13 are allowable over the combination of AAPA and Fenger. Applicants respectfully request that independent claims 1 and 13, and respective dependent claims 2-9 and 14-15, be allowed to pass to issuance.

Claims 11, 12, and 16-21 were rejected under 35 USC § 103(a) as being unpatentable over applicant's admission of prior art (AAPA)/Fenger (US Patent No. 5,701,476) as applied to claims 1-10 and 13-15, and further in view of Pietrek ("An In-Depth Look into the Win32 Portable Executable File Format", Feb. 2002, *MSDN Magazine*.) Claims 11 and 16 have been amended to clarify that the runtime services / operations are to be provided by platform firmware, thereby distinguishing the runtime services / operations allegedly provided by the prior art. Accordingly, independent claims 11 and 16, and respective dependent claims 12 and 17, are allowable for at least the foregoing reasons.

Independent claim 18 is rejected as a processing system implementing the method of claims 1-15. Independent claim 1 has been shown to be allowable over the cited references, and independent claim 18 and its respective dependent claims 19-21 are allowable for at least the foregoing reasons.

CONCLUSION

Applicant respectfully requests reconsideration in view of the remarks and amendments set forth above. If the Examiner has any questions, the Examiner is encouraged to contact the undersigned at (512) 732-1303. Please charge any shortage of fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-0221 and please credit any excess fees to such account.

Respectfully submitted,

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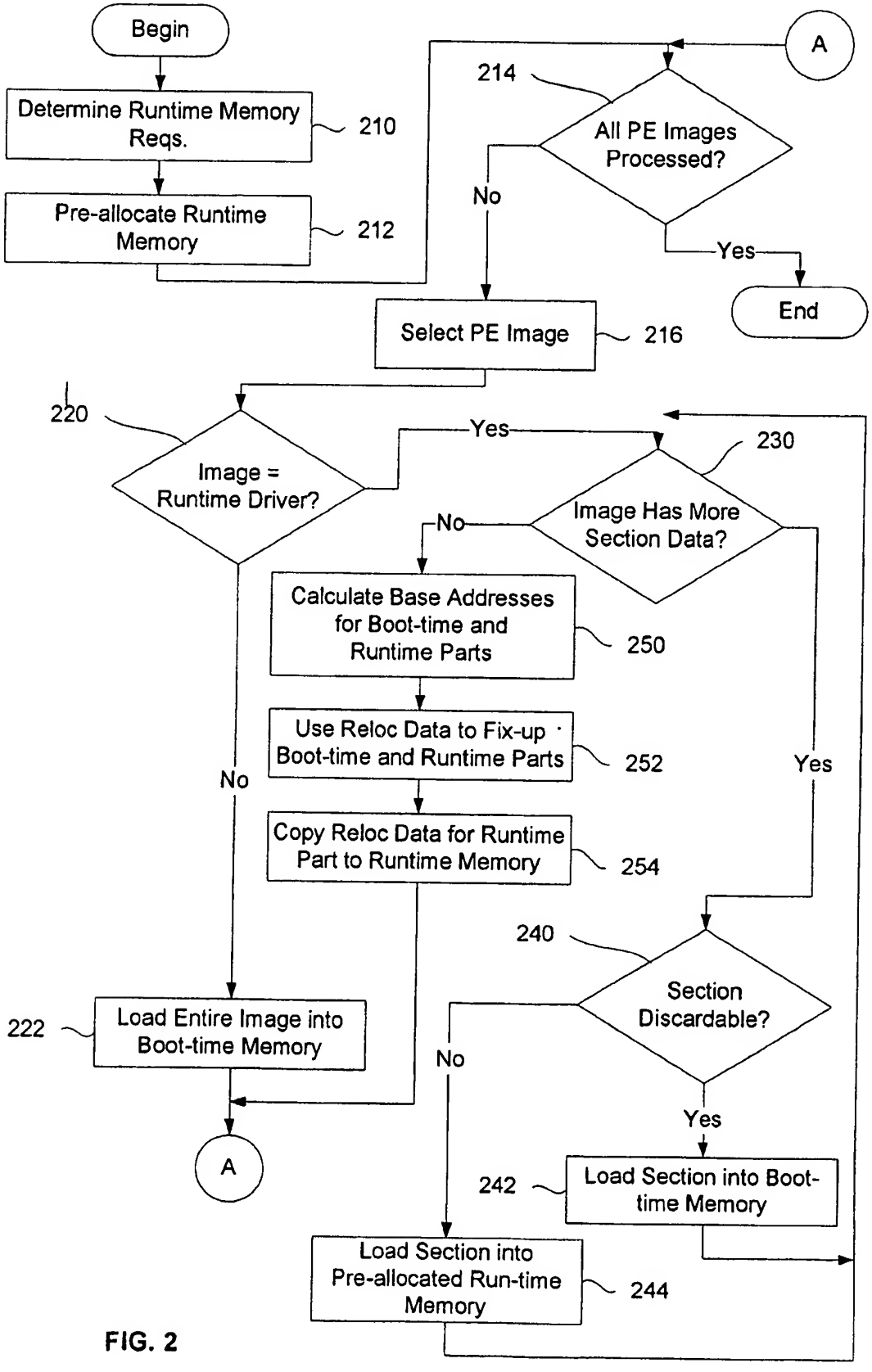
Begin
Determine Runtime Memory Reqs.
210
Pre-allocate Runtime Memory
212
A
214
All PE Images Processed?
No
Yes
End
Select PE Image
216
220
Image = Runtime Driver?
Yes
230
Image Has More Section Data?
No
Calculate Base Addresses for Boot-time and Runtime Parts
250
Use Reloc Data to Fix-up Boot-time and Runtime Parts
252
Copy Reloc Data for Runtime Part to Runtime Memory
254
No
Yes
240
Section Discardable?
No
Yes
222
Load Entire Image into Boot-time Memory
A
242
Load Section into Boot-time Memory
Load Section into Pre-allocated Run-time Memory
244

FIG. 2